



MARKED COPY OF THE RELEVANT PORTIONS OF THE SPECIFICATION

Deletions are indicated by a double strike-through the character.

Insertions are indicated by underlining the character.

Page 20, lines 12 through 24.

As described in more detail below, in accordance with the present invention, polynucleotide sequences which encode novel interferon-alpha homologue polypeptides, nucleotide sequences (*e.g.*, subsequences) that encode fragments of interferon-alpha homologue polypeptides, and nucleotide sequences that encode related fusion polypeptides or proteins, or functional equivalents thereof, are collectively referred to herein as "interferon-alpha homologues," "interferon homologue nucleic acids," "IFN-alpha homologues," "IFN homologues," "IFN nucleic acids," "interferon homologues," "interferon nucleic acids," "recombinant interferon-alpha," "recombinant interferon-alpha nucleic acids," "nucleic acids of the invention," "polynucleotides of the invention," or "nucleotides of the invention." ~~Polynucleotide, nucleotide are nucleic acid fragments of each of the preceding terms are also intended to be included and encompassed in polynucleotides, nucleotides, and nucleic acids of the invention. The term "nucleic acid" is used interchangeable with the term "nucleotide."~~

Page 59, line 9 through Page 60, line 8.

Mutagenesis methods of generating diversity include, for example, recombination (PCT/US98/05223; Publ. No. WO98/42727); site-directed mutagenesis (Ling et al. (1997) "Approaches to DNA mutagenesis: an overview," Anal. Biochem. 254(2):157-178; Dale et al. (1996) "Oligonucleotide-directed random mutagenesis using the phosphorothioate method," Methods Mol. Biol. 57:369-374; Smith (1985) "*In vitro* mutagenesis," Ann. Rev. Genet. 19:423-462; Botstein & Shortle (1985) "Strategies and applications of *in vitro* mutagenesis," Science 229:1193-1201; Carter (1986) "Site-directed mutagenesis," Biochem. J. 237:1-7; and Kunkel (1987) "The efficiency of oligonucleotide directed mutagenesis," in Nucleic Acids & Molecular Biology (Eckstein, F. and Lilley, D.M.J. eds., Springer Verlag, Berlin)); mutagenesis using uracil containing templates (Kunkel (1985) "Rapid and efficient site-specific mutagenesis without phenotypic selection," Proc. Nat'l Acad. Sci. USA 82:488-492; Kunkel et al. (1987)

"Rapid and efficient site-specific mutagenesis without phenotypic selection," ~~Results Probl. Cell Differ.~~ Methods in Enzymol. 154, 367-382; and Bass et al. (1988) "Mutant Trp repressors with new DNA-binding specificities," Science 242:240-245); oligonucleotide-directed mutagenesis (~~Results Probl. Cell Differ.~~ Methods in Enzymol. 100:468-500 (1983); ~~Results Probl. Cell Differ.~~ Methods in Enzymol. 154:329-350 (1987); Zoller & Smith (1982) "Oligonucleotide-directed mutagenesis using M13-derived vectors: an efficient and general procedure for the production of point mutations in any DNA fragment," Nucleic Acids Res. 10:6487-6500; Zoller & Smith (1983) "Oligonucleotide-directed mutagenesis of DNA fragments cloned into M13 vectors," ~~Results Probl. Cell Differ.~~ Methods in Enzymol. 100:468-500; and Zoller & Smith (1987) "Oligonucleotide-directed mutagenesis: a simple method using two oligonucleotide primers and a single-stranded DNA template," ~~Results Probl. Cell Differ.~~ Methods in Enzymol. 154:329-350); phosphorothioate-modified DNA mutagenesis (Taylor et al. (1985) "The use of phosphorothioate-modified DNA in restriction enzyme reactions to prepare nicked DNA," Nucl. Acids Res. 13:8749-8764; Taylor et al. (1985) "The rapid generation of oligonucleotide-directed mutations at high frequency using phosphorothioate-modified DNA," Nucl. Acids Res. 13:8765-8787 (1985); Nakamaye & Eckstein (1986) "Inhibition of restriction endonuclease Nci I cleavage by phosphorothioate groups and its application to oligonucleotide-directed mutagenesis," Nucl. Acids Res. 14:9679-9698; Sayers et al. (1988) "Y-T Exonucleases in phosphorothioate-based oligonucleotide-directed mutagenesis," Nucl. Acids Res. 16:791-802; and Sayers et al. (1988) "Strand specific cleavage of phosphorothioate-containing DNA by reaction with restriction endonucleases in the presence of ethidium bromide," Nucl. Acids Res. 16:803-814); mutagenesis using gapped duplex DNA (Kramer et al. (1984) "The gapped duplex DNA approach to oligonucleotide-directed mutation construction," Nucl. Acids Res. 12:9441-9456; Kramer & Fritz (1987) "Oligonucleotide-directed construction of mutations via gapped duplex DNA," ~~Results Probl. Cell Differ.~~ Methods in Enzymol. 154:350-367; Kramer et al. (1988) "Improved enzymatic *in vitro* reactions in the gapped duplex DNA approach to oligonucleotide-directed construction of mutations," Nucl. Acids Res. 16:7207; and Fritz et al. (1988) "Oligonucleotide-directed construction of mutations: a gapped duplex DNA procedure without enzymatic reactions *in vitro*," Nucl. Acids Res. 16:6987-6999).

Additional suitable methods include point mismatch repair (Kramer et al. (1984) "Point Mismatch Repair," Cell 38:879-887), mutagenesis using repair-deficient host strains (Carter et al. (1985) "Improved oligonucleotide site-directed mutagenesis using M13 vectors," Nucl. Acids Res. 13:4431-4443; and Carter (1987) "Improved oligonucleotide-directed mutagenesis using M13 vectors," ~~Results Probl. Cell Differ~~ Methods in Enzymol. 154:382-403), deletion mutagenesis (Eghtedarzadeh & Henikoff (1986) "Use of oligonucleotides to generate large deletions," Nucl. Acids Res. 14:5115), restriction-selection and restriction-selection and restriction-purification (Wells et al. (1986) "Importance of hydrogen-bond formation in stabilizing the transition state of subtilisin," Phil. Trans. R. Soc. Lond. A 317:415-423), mutagenesis by total gene synthesis (Nambiar et al. (1984) "Total synthesis and cloning of a gene coding for the ribonuclease S protein," Science 223:1299-1301; Sakamar and Khorana (1988) "Total synthesis and expression of a gene for the α -subunit of bovine rod outer segment guanine nucleotide-binding protein (transducing)," Nucl. Acids Res. 14:6361-6372; Wells et al. (1985) "Cassette mutagenesis: an efficient method for generation of multiple mutations at defined sites," Gene 34:315-323; and Grundström et al. (1985) "Oligonucleotide-directed mutagenesis by microscale 'shot-gun' gene synthesis," Nucl. Acids Res. 13:3305-3316), double-strand break repair (Mandecki (1986) "Oligonucleotide-directed double-strand break repair in plasmids of *Escherichia coli*: a method for site-specific mutagenesis," Proc. Nat'l Acad. Sci. USA, 83:7177-7181). Additional details on many of the above methods can be found in Methods in Enzymology, Vol. 154, which also describes useful controls for trouble-shooting problems with various mutagenesis methods.